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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,577	12/29/2000	Ross Miller	AT00092	8368
24710	7590	12/17/2003	EXAMINER	
ALIGN TECHNOLOGY, INC.			WILSON, JOHN J	
ATTENTION: BAO Q. TRAN				
881 MARTIN AVENUE			ART UNIT	PAPER NUMBER
SANTA CLARA, CA 95050			3732	18
DATE MAILED: 12/17/2003				

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 18

Application Number: 09/751,577
Filing Date: December 29, 2000
Appellant(s): MILLER, ROSS

MAILED
DEC 17 2003
GROUP 3700

Townsend and Townsend and Crew, LLP
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 20, 2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

No amendment after final has been filed.

Appellant's remarks imply that the claims have been amended after final rejection, however, the paper filed by applicant on January 21, 2003, Paper No. 9, was a request for reconsideration only and did not contain any amendments to the claims.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: Add the following issue, see first paragraph of page 6 of the final rejection, Paper No. 6.

V. Whether claim 32 is unpatentable under 35 U.S.C. 103(a) over Andrews in view of Bergersen, Kurz and Andreiko et al (5454717).

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1, 12, 26, 34 and 35 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

4,591,341	Andrews	5-1986
3,950,851	Bergersen	4-1976
4,348,178	Kurz	9-1982
5,454,717	Andreiko et al.	10-1995
5,975,893	Chishti et al.	11-1999

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews (4591341) in view of Bergersen (3950851), Kurz (4348178) and Andreiko et al (5454717). This rejection is set forth in prior Office Action, Paper No. 6.

Claims 12-31 and 33-38 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews (4591341) in view of Bergersen (3950851) and Kurz (4348178). This rejection is set forth in prior Office Action, Paper No. 6.

Claims 6-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews (4591341) in view of Kurz (4348178). This rejection is set forth in prior Office Action, Paper No. 6.

Claim 32 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews (4591341) in view of Bergersen (3950851), Kurz (4348178) and Andreiko et al (5454717). This rejection is set forth in prior Office Action, Paper No. 6.

Claims 1-32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews (4591341) in view of Chishti et al (5975893). This rejection is set forth in prior Office Action, Paper No. 6.

(11) Response to Argument

It is noted that appellant questions the use of Bergersen. This reference has been used to show the material claimed, "polymeric" for the shells, (shell is another name for the more commonly used term of art "mouth piece". Appellant does not argue that the use of the material is new or unobvious.

With respect to grouped claims 1-5 and 20-25, it is first noted that claims 1-5 are directed to a system that is comprised of articles, while claims 20-25 are directed to a method. Appellant argues that Andrews teaches using only one mouth piece after using brackets and wire and that it would not be obvious to combine this teaching with Kurz because Kurz teaches against the combination by teaching that the mouth pieces can be used without other orthodontic appliances and cites column 1, lines 59-68, and column 3, lines 22-29 of Kurz. The examiner disagrees because, with respect to the

method claims, Kurz teaching is not exclusive, instead Kurz teaches that the plurality of mouth pieces "can be" used without other orthodontic appliances, column 1, lines 61, and teaches that the "may" be used without other orthodontic appliances, column 3, line 36. Further, Andrews teaches using a mouth piece with brackets and wire. To use a plurality of mouth pieces as shown by Kurz is merely duplicating a known method step. With respect to the article claims 1-5, the combination proper shows the claimed structure. The intended use is not given patentable weight. Appellant further argues that none of these references show "digitally generated shells". It is agreed that they do not teach digitally generated, however, in an article claim, it is only necessary to show the actual claimed structure regardless of how that structure is made. As such, for claims 1-5, the process of forming the shells is not given patentable weight. This limitation is not included in method claims 20-25.

With respect to grouped claims 12-19, appellant argues that the prior art does not show determining treatment geometries of a plurality of shells at the outset. The examiner disagrees because the combination of Andrews and Kurz shows the use of brackets and wire with a plurality of mouth pieces as argued above. Kurz further teaches that it is known that a mouth piece can move teeth between one and two millimeters, column 3, lines 40-46, and further makes a predetermined estimate of the number of mouth pieces that are needed. Further, the terminology "geometries" is broad and it is held that it is well known that such mouth pieces typically have U-shaped geometry. One of ordinary skill in the art would find it obvious to know at the outset geometries of the mouth pieces used.

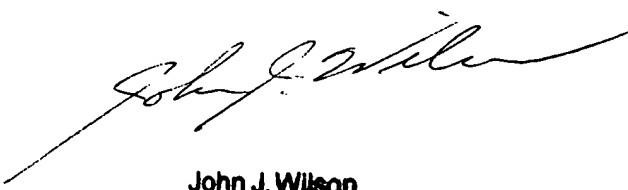
With respect to grouped claims 6-11 and 26-33, appellant argues that the prior art does not show, nor suggest, severe malocclusion determination that is determined before prescribing treatment and does not show, nor suggest, treatment in a predetermined order of at least one wire and bracket and a plurality of successive polymeric shells. With respect to malocclusion determination, it is well known in the art and in all medical arts to diagnose a patient's condition before prescribing treatment. The severity of the condition is inherent in such diagnosis. It is further well known to apply the appropriate treatment after diagnosis. Further, the prior art teaches known methods of treating including using brackets and wire followed by a mouth piece, see Andrews, and using a plurality of mouth pieces, see Kurz. Using these art known treatments to apply the desired forces to move the teeth based on a diagnosis would have been obvious to one of ordinary skill in the art in order to move the patient's teeth to a desired location applying the most appropriate forces needed. With respect to applying treatment in a predetermined order, Andrews shows a predetermined order as referred to in the rejection, brackets and wire first followed by a mouth piece.

With respect to grouped claim 34, appellant argues that using brackets and wire first followed by a plurality of shells is not shown by the prior art. It is noted that claim 34 depends from claim 26, therefore, the statements made above with respect to claim 26 apply. Further, as stated Andrews shows using brackets and wire first followed by a mouth piece and as stated above, the use of a plurality of mouth pieces would have been obvious in view of Kurz.

With respect to grouped claim 35, appellant argues that using polymeric shell appliances first followed by wire and brackets is not shown by the prior art. It is noted that claim 35 depends from claim 26, therefore, the statements made above with respect to claim 26 apply. Further, as stated Andrews shows using a predetermined order, that of brackets and wire first followed by a mouth piece. As stated above, the use of a plurality of mouth pieces would have been obvious in view of Kurz. To reverse the order of these known and obvious method steps is merely a matter in choice in the order of known steps to one of ordinary skill in the art in order to apply the appropriate forces at the appropriate times to move the teeth to a desired location.

With respect to the rejection of claims 1-32 under Andrews in view of Chishti et al., Chishti teaches the use of a plurality of polymeric shells to move teeth. The combination is proper for the same reasons as stated for Kurz above. For the above reasons, it is believed that the rejections should be sustained.

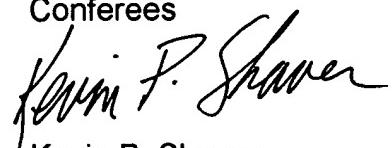
Respectfully submitted,



John J. Wilson
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jjw
December 9, 2003

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